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An economic analysis on marketing of Mushroom in Prayagraj district of Uttar Pradesh

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Abstract

The present study had been undertaken to analyse the economic aspects of mushroom marketing in Prayagraj district of Uttar Pradesh, with particular emphasis on marketing costs, margins, price spread, marketing efficiency, and producer's share in the consumer's rupee. Mushroom cultivation had gained importance as a profitable and sustainable agri-enterprise; however, its marketing system had remained largely unorganised and inefficient. The study had employed a combination of purposive and random sampling techniques, selecting 60 mushroom growers along with wholesalers, retailers, and consumers. Primary data had been collected through structured personal interviews, while secondary data had been obtained from relevant records and literature. The analysis pertained to the agricultural year 2025-2026 and utilised standard marketing indicators. Three marketing channels were identified: Channel I (Producer-Consumer), Channel II (Producer-Wholesaler-Consumer), and Channel III (Producer-Wholesaler-Retailer-Consumer). The findings had revealed that Channel I exhibited the highest efficiency, characterised by the lowest marketing cost (₹15 per kg), smallest price spread (₹15), and highest producer's share (88.46 per cent). In contrast, Channel II and Channel III showed progressively higher marketing costs, margins, and price spreads due to the involvement of intermediaries, resulting in lower efficiency and reduced producer's share. Channel III was found to be the least efficient, with the highest price spread (₹69.80) and lowest producer's share (58.45 per cent). The study had concluded that shorter marketing channels significantly enhanced efficiency and profitability for producers, highlighting the need to strengthen direct marketing systems and reduce unnecessary intermediaries.

Keywords: Mushroom marketing, marketing efficiency, price spread, producer's share, marketing channels

Introduction

Mushroom cultivation had emerged as a promising agri-based enterprise in Prayagraj district of Uttar Pradesh due to its minimal land requirement, short production cycle, and high nutritional value. In recent years, growing health consciousness and changing food habits had led to an increased demand for mushrooms, thereby creating new income-generating opportunities for farmers and small-scale entrepreneurs. Despite this potential, the marketing system for mushrooms remained largely unorganised and inefficient, characterised by price instability, inadequate storage and preservation facilities, limited access to organised markets, and the significant involvement of intermediaries. These factors often reduced the share of producers in the consumer's rupee and adversely affected their profitability. In this context, the present study was undertaken to analyse the economic aspects of mushroom marketing in the study area. It examined the existing marketing channels, price spread, marketing costs, and margins to assess the efficiency of the prevailing system. The study also aimed to identify the major constraints faced by mushroom growers and traders in the marketing process. Emphasis was placed on understanding the role of infrastructure, transportation, and institutional support in improving market performance. The findings of the study were expected to provide useful insights for policymakers and stakeholders to strengthen the mushroom marketing system and promote sustainable agricultural diversification in the region.

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Research Methodology

The selection of the district, blocks, villages, and respondents had been undertaken through a combination of purposive and random sampling techniques. Prayagraj district had been deliberately chosen in order to minimise logistical constraints and time limitations encountered during the course of the investigation. Among the various blocks within the district, Kaurihar block had been selected purposively due to the relatively higher concentration of respondents engaged in mushroom cultivation. A comprehensive list of villages within the selected block had then been prepared, from which five per cent of villages, characterised by a comparatively large number of mushroom growers, had been selected using random sampling methods. Subsequently, a complete list of mushroom cultivators in the selected villages had been compiled and categorised into three groups based on the scale of cultivation, namely small (below 150 bags), medium (151-300 bags), and large (above 300 bags). From this sampling frame, a total of 60 farmers had been selected through proportionate random sampling. In addition, 10 wholesalers, 5 retailers, and 10 consumers had been selected to examine marketing cost, marketing margin, price spread, producer's share in the consumer's rupee, and marketing efficiency in the study area. Primary data had been collected through direct personal interviews using a well-structured schedule, while secondary data had been obtained from books, journals, reports, and official records maintained at district and block headquarters. The collected data had been analysed using appropriate statistical tools, and the findings pertained to the agricultural year 2025-2026.

Analytical Tools

Marketing Cost: $C = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$

Market Margin: $AMI = Pri - (P_{pi} + C_{mi})$

Price Spread: Marketing Cost + Market Margin

Marketing Efficiency = $\frac{\text{Price received by producer}}{\text{Marketing Cost} + \text{Marketing Margin}}$

Producer's Share in Consumer Rupee = $\frac{\text{Price received by the farmer} \times 100}{\text{Retail price paid by the consumer}}$

Results and Discussion

Table 1: Analysis of Marketing Cost, Margin, Price Spread, Marketing Efficiency, and Producer's Share in Consumer Rupee of Button Mushroom under Channel I (Producer-Consumer).

S. No.	Particulars	Value (Rs. per kg)
1	Producer's sale price	130
2	Costs incurred by producer	
a	Packing expenses	1.75
b	Transportation charges	2.75
c	Cleaning and grading cost	1.75
d	Labour expenses	3.50
e	Miscellaneous expenses	5.25
	Total marketing cost	15.00
3	Net price realised by producer	115
A	Total marketing cost	15.00
B	Price spread	15.00
C	Marketing efficiency	7.67%
D	Producer's share in consumer rupee	88.46%

Table 1: The table presented the marketing cost, price spread, marketing efficiency, and producer's share in the consumer's rupee for button mushroom under Channel I (Producer-Consumer). It was observed that the producer sold the product at a price of ₹130 per kg, while incurring a total marketing cost of ₹15 per kg. The principal cost components comprised labour (₹3.50), transportation (₹2.75), along with other miscellaneous expenses. After accounting for these costs, the net amount realised by the producer was ₹115 per kg. The price spread was estimated at ₹15, indicating a minimal gap between the consumer's payment and the producer's receipt due to the absence of intermediaries in this channel. The marketing efficiency was calculated at 7.67 per cent, suggesting a comparatively high level of efficiency. Moreover, the producer's share in the consumer's rupee was recorded at 88.46 per cent, highlighting that direct marketing enabled producers to retain a substantial proportion of the final price, thereby making Channel I highly advantageous for them.

Table 2: Assessment of Marketing Cost, Margin, Price Spread, Marketing Efficiency, and Producer's Share in Consumer Rupee of Button Mushroom under Channel II (Producer-Wholesaler-Consumer)

S. No.	Particulars	Value (Rs. per kg)
1	Producer's sale price to wholesaler	115.00
2	Costs incurred by producer	
a	Packing expenses	2.20
b	Transportation charges	2.80
c	Market-related charges	2.20
d	Labour expenses	3.40
e	Loading and unloading charges	0.60
f	Weighing charges	1.60
g	Miscellaneous expenses	4.00
	Total producer cost	16.80
3	Net price realised by producer	98.20
4	Wholesaler's sale price to consumer	140.00
5	Costs incurred by wholesaler	
a	Loading and unloading charges	0.80
b	Carriage to shop	1.70
c	Weighing charges	0.50
d	Market/town charges	1.90
e	Transportation cost	1.70
f	Miscellaneous expenses	1.00
	Total wholesaler cost	7.60
6	Wholesaler's margin	17.40
A	Total marketing cost	24.40
B	Total marketing margin	17.40
C	Price spread	41.80
D	Marketing efficiency	2.34%
E	Producer's share in consumer rupee	70.14%

Table 2: The table presented the marketing cost, margin, price spread, marketing efficiency, and producer's share in the consumer's rupee for button mushroom under Channel II (Producer-Wholesaler-Consumer). It was observed that the producer sold the produce to the wholesaler at ₹115 per kg and incurred a total marketing cost of ₹16.80 per kg, resulting in a net realisation of ₹98.20 per kg. The wholesaler subsequently sold the product to consumers at ₹140 per kg, bearing a marketing cost of ₹7.60 per kg and retaining a margin of ₹17.40 per kg. The aggregate marketing cost within this channel amounted to ₹24.40, while the total marketing margin stood at ₹17.40. The price spread was estimated at ₹41.80, indicating a wider gap

between the consumer price and the producer's net receipt due to the involvement of an intermediary. Furthermore, the marketing efficiency was calculated at 2.34 per cent, suggesting a comparatively lower level of efficiency than the direct marketing channel. The producer's share in the consumer's rupee was recorded at 70.14 per cent, reflecting a reduced proportion of the final price accruing to the producer owing to intermediary participation.

Table 3: Evaluation of Marketing Cost, Margin, Price Spread, Marketing Efficiency, and Producer's Share in Consumer Rupee of Button Mushroom under Channel III (Producer-Wholesaler-Retailer-Consumer)

S. No.	Particulars	Value (Rs. per kg)
1	Producer's sale price to wholesaler	115.00
2	Costs incurred by producer	
a	Packing expenses	2.20
b	Transportation charges	2.80
c	Market-related charges	2.20
d	Labour expenses	3.40
e	Loading and unloading charges	0.60
f	Weighing charges	1.60
g	Miscellaneous expenses	4.00
	Total producer cost	16.80
3	Net price realised by producer	98.20
4	Wholesaler's sale price to retailer	135.00
5	Costs incurred by wholesaler	
a	Loading and unloading charges	0.80
b	Carriage to shop	1.70
c	Weighing charges	0.50
d	Market/town charges	1.90
e	Transportation cost	1.70
f	Miscellaneous expenses	1.00
	Total wholesaler cost	7.60
6	Wholesaler's margin	12.40
7	Retailer's sale price to consumer	168.00
8	Costs incurred by retailer	
a	Weighing charges	0.30
b	Loading and unloading charges	1.10
c	Shop rent	1.10
d	Grading cost	1.40
e	Spoilage losses	1.30
f	Transportation cost	1.25
g	Miscellaneous expenses	2.10
	Total retailer cost	8.55
9	Retailer's margin	24.45
10	Consumer purchase price	168.00
A	Total marketing cost	32.95
B	Total marketing margin	36.85
C	Price spread	69.80
D	Marketing efficiency	1.40%
E	Producer's share in consumer rupee	58.45%

Table 3: The table presented the marketing cost, margin, price spread, marketing efficiency, and producer's share in the consumer's rupee for button mushroom under Channel III (Producer-Wholesaler-Retailer-Consumer). It was observed that the producer sold the produce to the wholesaler at ₹115 per kg and incurred a marketing cost of ₹16.80 per kg, resulting in a net realisation of ₹98.20 per kg. The wholesaler subsequently sold the product to the retailer at ₹135 per kg, bearing a cost of ₹7.60 per kg and retaining a margin of ₹12.40 per kg. Further along the channel, the retailer sold the product to the final consumer at ₹168 per kg, incurring a marketing cost of ₹8.55 per kg and earning a

margin of ₹24.45 per kg. The total marketing cost in this channel amounted to ₹32.95, while the aggregate marketing margin was ₹36.85. The price spread was calculated at ₹69.80, indicating a substantial gap between the consumer's price and the producer's net receipt due to the involvement of multiple intermediaries. Moreover, the marketing efficiency was estimated at 1.40 per cent, reflecting the lowest level of efficiency among the channels. The producer's share in the consumer's rupee was recorded at 58.45 per cent, demonstrating a comparatively lower return to producers as a result of the extended marketing chain.

Table 4: Comparative Analysis of Marketing Cost, Margin, Price Spread, Marketing Efficiency, and Producer's Share in Consumer Rupee of Button Mushroom across Channel I, Channel II, and Channel III in the Study Area.

S. No.	Particulars	Channel I (Rs./kg)	Channel II (Rs./kg)	Channel III (Rs./kg)
1	Net price realised by producer	115.00	98.20	98.20
2	Consumer purchase price	130.00	140.00	168.00
3	Total marketing cost	15.00	24.40	32.95
4	Total marketing margin	—	17.40	36.85
5	Price spread	15.00	41.80	69.80
6	Marketing efficiency	7.67%	2.34%	1.40%
7	Producer's share in consumer rupee	88.46%	70.14%	58.45%

Table 4: The table presented a comparative evaluation of marketing cost, marketing margin, price spread, marketing efficiency, and producer's share in the consumer's rupee across three marketing channels of button mushroom. It was evident that Channel I (Producer-Consumer) performed most efficiently, as it recorded the highest net price realised by producers (₹115 per kg), the lowest marketing cost (₹15 per kg), and the smallest price spread (₹15). This channel also exhibited the highest marketing efficiency (7.67 per cent) and the greatest producer's share in the consumer's rupee (88.46 per cent), reflecting the advantages of direct marketing. In contrast, Channel II demonstrated moderate performance, with a higher marketing cost (₹24.40 per kg), margin (₹17.40 per kg), and price spread (₹41.80), which led to reduced marketing efficiency (2.34 per cent) and a lower producer's share (70.14 per cent). Channel III was found to be the least efficient, characterised by the highest marketing cost (₹32.95 per kg), margin (₹36.85 per kg), and price spread (₹69.80). Consequently, it recorded the lowest marketing efficiency (1.40 per cent) and the smallest producer's share in the consumer's rupee (58.45 per cent). Overall, the findings indicated that efficiency declined and the producer's share diminished with an increase in the number of intermediaries in the marketing channel.

Conclusion

The study had provided a comprehensive economic analysis of mushroom marketing in Prayagraj district, highlighting significant variations in cost structure, marketing margins, price spread, efficiency, and producer's share across different marketing channels. It had been observed that the performance of the marketing system was largely influenced by the number of intermediaries involved in the distribution process. Channel I, which facilitated direct interaction between producers and consumers, had proved to be the

most efficient and beneficial channel. It had recorded the lowest marketing cost and price spread, along with the highest marketing efficiency and producer's share in the consumer's rupee. This indicated that direct marketing enabled producers to retain a greater proportion of the final price, thereby improving their income and economic well-being. In contrast, Channel II and Channel III, which involved one and two intermediaries respectively, had exhibited progressively higher marketing costs and margins. This had resulted in a wider price spread and reduced efficiency, ultimately lowering the share of producers in the consumer's rupee. Channel III, in particular, had been identified as the least efficient due to the highest involvement of intermediaries, leading to increased costs and reduced profitability for producers. The findings had clearly demonstrated that longer marketing chains contributed to inefficiencies and diminished returns for farmers. Therefore, the study had emphasised the need to promote direct marketing channels, improve market infrastructure such as storage and transportation facilities, and strengthen institutional support systems including cooperatives and farmer-producer organisations. Additionally, enhancing market information systems and reducing price fluctuations had been considered essential for improving the overall marketing system. Overall, the study had underscored that efficient marketing mechanisms were crucial for ensuring sustainable growth and profitability in mushroom cultivation within the study area.

References

1. Banjara T, Patel S, Joshi N. Utilization of agricultural waste as substrates for mushroom cultivation in India. *Journal of Sustainable Agriculture*. 2021;25(8):507-519.
2. Chauhan A. An economic analysis on marketing of mushroom. *AgriXpress*. 2025;3(1):120-126.
3. Dhiman S, Singh P, Gupta R. Economic aspects of mushroom farming in India: Exploring economies of scale and market models. *Asian Journal of Agricultural Extension, Economics and Sociology*. 2024;42(10):112-125.
4. Fernandes M, Rao K. Innovative preservation techniques for mushrooms: Exploring irradiation and packaging methods. *International Journal of Food Studies*. 2021;15(5):303-315.
5. Gupta H, Bhat A. Chemical treatments and packaging solutions for reducing post-harvest losses in mushrooms. *Journal of Postharvest Biology and Technology*. 2022;24(7):145-158.
6. Horo M, Singh S. Economic and infrastructural challenges in mushroom farming: Focus on transportation and packaging costs. *Indian Journal of Agricultural Economics*. 2023;38(7):70-84.
7. Jaiswal AK, Sharma HL, Gugalía G. Mushroom: A nutritious and environment friendly crop. *Bhartiya Krishi Anusandhan Patrika*. 2024;39(2):137-141.
8. Khan A. Contribution of mushroom farming to mitigating food scarcity. *Journal of Agriculture and Food Research*. 2024;18:100-110.
9. Kumar V, Sharma D, Yadav S. A facet of marketing effectiveness of button mushroom production. *International Journal of Environment, Agriculture and Biotechnology*. 2025;10(3):45-52.
10. Ladha S, Kumar S, Mishra A. Policy interventions for improving post-harvest management in mushroom farming: A regional approach. *Journal of Agricultural Policy and Development*. 2022;29(4):180-192.
11. Mafe AN. Mushroom production: A synthesis of socio-economic and marketing aspects. *International Journal of Environment, Agriculture and Biotechnology*. 2025;11(5):101-110.
12. Marcal A, Fernandes P, Singh R. Advanced processing techniques to reduce post-harvest losses in mushrooms. *Journal of Agricultural Research and Innovation*. 2021;12(6):94-106.
13. Pandya MR. Holistic review on mushroom and its socio-economic importance. *Asian Journal of Agricultural Economics and Extension*. 2024;42(10):1-12.
14. Thakur MP. Current status and future prospects of mushroom cultivation in India. *Agricultural Reviews*. 2025;46(1):1-10.
- 15.